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APPARATUS FOR COUNTING PEA SEEDS

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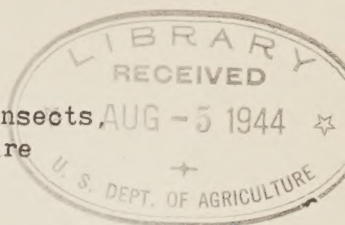


Figure 1 is a schematic drawing of the pea-seed counter developed at the pea-weevil laboratory of the Bureau of Entomology, at Moscow, Idaho. The device served to expedite the process of counting uniform samples of peas for experimental purposes, and it also reduced the chances of error when compared with the hand-counting method. In practice, a sample of 500 peas could be counted and sacked in one minute.

The device consists essentially of a grill, pierced by 500 holes, set above a slide and a drawer. In operation, the peas to be counted are poured onto the grill and then spread about until all of the holes in the grill have been filled, after which the excess peas are pushed off into the tray. The slide is then pulled out, and the 500 peas in the grill holes fall into the drawer. The slide is then reinserted, and the counter is ready for another operation. Best results are secured when the peas have been screened to remove all small and imperfect peas.

The dimensions for a counter suitable for counting Alaska seed peas are as follows:

Outside dimensions of box: 15 by $13\frac{1}{2}$ by $3\frac{1}{2}$ inches.

Beveled edge on top of grill: $\frac{3}{4}$ inch.

Grill: 15 by $13\frac{1}{2}$ inches. Holes $\frac{5}{16}$ inch in diameter and $\frac{3}{16}$ inch deep, arranged 25 holes by 20.

Slide: $\frac{5}{16}$ by $12\text{--}5/8$ by $14\frac{1}{2}$ inches, mounted on 1-inch supporting frame to prevent buckling when the peas are being spread about.

Drawer: $11\frac{3}{4}$ by $14\frac{1}{4}$ by $1\frac{1}{2}$ inches.

Pea tray: $14\frac{1}{2}$ by $3\frac{3}{4}$ by 3 inches.

The dimensions presented here are arbitrary, with the exception of the grill holes, which may be varied in size for different kinds of seeds. In constructing the counter, the grill should be fastened to the body of the counter by screws in order that grills containing different sized holes may be easily attached and removed.

Mr. Horace Shipman, Assistant Field Aid, and Mr. L. F. Burkhart, Field Superintendent of the Agronomy Department of the University of Idaho, offered many helpful suggestions during the construction of the apparatus.

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APPARATUS FOR COUNTING ALASKA SEED PEARLS

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Figure 1 is a schematic drawing of the pear-seed counter developed at the post-research laboratory of the Bureau of Entomology, at Moscow, Idaho. The device served to expedite the process of counting minute samples of pears for experimental purposes, and it also reduced the chance of error when compared with the hand-counting method. In practice a sample of 500 pears could be counted and sorted in one minute.

The device consists essentially of a grill, pierced by 500 holes, set above a slide and a drawer. In operation, the pears are poured into the grill and then spread about until all of the holes in the grill have been filled, after which the excess pears are pushed off into the tray. The slide is then pulled out, and the 500 pears in the grill holes fall into the drawer. The slide is then reinserted, and the counter is ready for another operation. Seed results are secured when the pears have been returned to remove all small and imperfect pears.

The dimensions for a counter suitable for counting Alaska seed pears are as follows:

Outside dimensions of box 15 by 15 by 2 1/2 inches
Reveled edge on top of grill 1 inch
Grill 15 by 15 inches. Holes 5/16 inch in diameter and
3/16 inch deep, arranged 15 holes by 20.
Slide 8 1/2 by 12 1/2 by 1 1/2 inches, mounted on 1-inch
supporting frame to prevent buckling when the pears
are being spread about.
Drawer 14 1/2 by 14 1/2 by 1 1/2 inches
Pear tray 14 1/2 by 2 1/2 by 5 inches

The dimensions presented here are arbitrary, with the exception of the grill holes, which may be varied in size for different kinds of seeds. In constructing the counter, the grill should be fastened to the body of the counter by screws in order that grill's constructionally-tentative holes may be easily attached and removed.

Mr. Horace Eugene, Assistant Field Aid and Mr. L. R. Borchardt, Field Superintendent of the Agency Department of the University of Idaho, offered many helpful suggestions during the construction of the apparatus.

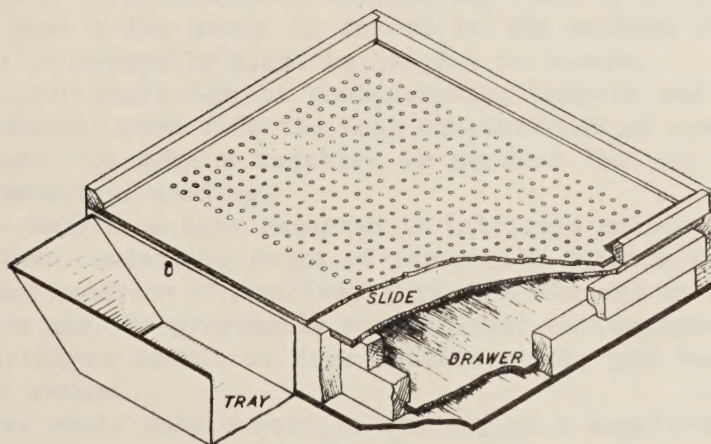


Figure 1.--Schematic drawing of a pea-seed counter

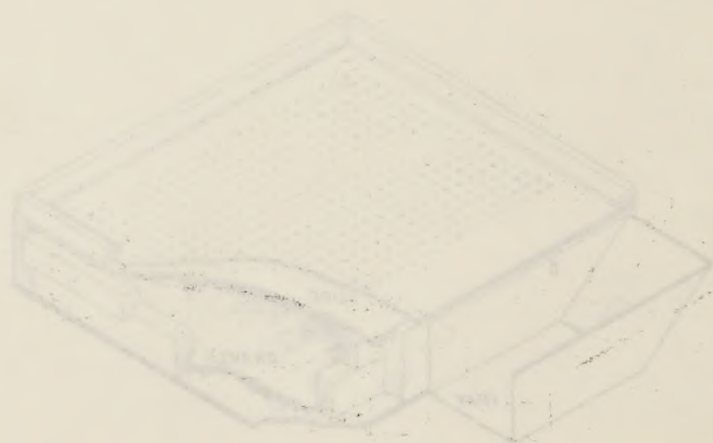


Fig. 1. Isometric drawing of a seed hopper.